

[0016] **FIG. 2** is a table that illustrates certain inventive concepts in accordance with one or more embodiments.

[0017] **FIG. 3** is a flow diagram that describes steps in a method in accordance with one embodiment.

[0018] **FIG. 4** is an illustration of a personal digital assistant in accordance with one embodiment.

[0019] **FIG. 5** is an illustration of a personal digital assistant in accordance with one embodiment.

[0020] **FIG. 6** is an illustration of a personal digital assistant in accordance with one embodiment.

[0021] **FIG. 7** is an illustration of a personal digital assistant in accordance with one embodiment.

[0022] **FIG. 8** is a cross-sectional view of a portion of a stylus in accordance with one embodiment.

[0023] **FIG. 9** is a block diagram that illustrates various components of a stylus and a PDA in accordance with one embodiment.

[0024] **FIG. 10** is a flow diagram that describes steps in a method in accordance with one embodiment.

## DETAILED DESCRIPTION

### Overview

[0025] The embodiments described below can greatly enhance the input fidelity of personal digital assistants (PDAs) and other handheld stylus-engagable computing devices. In some embodiments, this can be done by associating input commands with different user-input activities, including different combinations of user-input activities. By using different combinations of user-input activities to designate particular input commands, a more robust collection of commands can be provided to a user in a manner that is simple, straight-forward and easy to understand.

[0026] Examples of user-input activities can include engaging a user-engagable structure on the PDA, pressing a button on the PDA, touching the touch screen of the PDA with a stylus and the like. So, for example, one input command might be given by both engaging a particular button on the PDA and touching a displayed item on the touch screen with the stylus. Yet, a different input command might be given by only engaging the same button.

### Exemplary Inventive Principles

[0027] To assist the reader in understanding and appreciating the inventive embodiments described below, the following discussion provides an explanation of various inventive principles that are embodied in at least some of the embodiments.

[0028] **FIG. 2** shows a table **200** that organizes and associates various input commands **202** with various user-input activities. An "X" in a particular box for an associated command means that that particular user-input activity is used to generate that input command. The commands in the example are numbered "1" through "5", while there are four exemplary user-input activities. It is to be appreciated and understood that many more commands are typically organized and associated with various user-input activities.

[0029] As noted above, user-input activities can comprise different types of activities. For purposes of this example, assume the following. User activity **1** consists of a user engaging a first button associated with the PDA; user activity **2** consists of a user engaging a second button associated with the PDA; user activity **3** consists of a user engaging a third button associated with the PDA; and user activity **4** consists of a user engaging a certain area of the PDA's touch screen with the stylus. The engagable areas on the touch screen can be different from one another.

[0030] From table **200**, the following can be ascertained. When a user engages the first button and touches a particular area of the PDA's touch screen with the stylus, command **1** is generated. A different command is generated if, instead of engaging the first button and touching the particular area of the PDA's touch screen, the user simply only touches the same area of the touch screen without engaging the first button. Similarly, when a user engages the second button and touches a particular area of the PDA's touch screen with the stylus, command **2** is generated. The "particular area" that is touched by the stylus can be the same area or a different area from the above example. A different command is generated if, instead of engaging the second button and touching the particular area of the PDA's touch screen, the user simply only touches the same area of the touch screen without engaging the second button. Likewise, when a user engages the third button and touches a particular area of the PDA's touch screen with the stylus, command **3** is generated. A different command is generated if, instead of engaging the third button and touching the particular area of the PDA's touch screen, the user simply only touches the same area of the touch screen without engaging the third button. Explanation of commands **4** and **5** logically follow from the above discussion.

[0031] **FIG. 3** is a flow diagram that describes steps in a method in accordance with one embodiment. The steps can be implemented in any suitable hardware, software, firmware, or combination thereof. In the illustrated example, the steps can be performed by a suitably programmed PDA. The various steps can reside as software instructions that are embodied on a readable-medium that comprises part of the PDA.

[0032] Step **300** associates one or more input commands with a combination of user-input activities. But one example of how this can be done is given above in connection with **FIG. 2**. Specifically, user-input activities such as engaging a particular button and touching a particular area of the PDA's touch screen are associated with different commands. Step **302** detects a combination of user-input activities. This step is implemented by the PDA detecting when a user has performed a combination of user-input activities. For example, if a user were to depress a first button and engage a particular area of the PDA's touch screen, then this step would detect that event. Specific examples of how this can be done in various embodiments are given below.

[0033] Step **304** generates an input command associated with the detected combination, and step **306** performs a generated command.

[0034] As an example, consider the following in connection with **FIGS. 4 and 5**. **FIG. 4** shows a PDA **400** in which the user has called up an email window **402**. The PDA includes multiple buttons generally designated at **404**. The